

# EUROPEAN PATENT OFFICE

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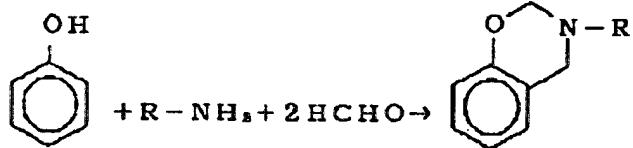
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TITLE : THERMOSETTING RESIN  
COMPOSITION



ABSTRACT : PROBLEM TO BE SOLVED: To obtain a thermosetting resin compsn. excellent in flexibility and adhesion to a substrate, by forming it from at least one compd. having a dihydrobenzoxazine ring and an elastomer.

SOLUTION: A heat-resistant resin having a dihydrobenzoxazine ring used in the compsn. can be synthesized from the corresponding compd. having a phenolic hydroxyl group, Formalin(R), and a prim. amine according to the formula. This resin undergoes ring-opening polymn. when heated to form a crosslinked structure with excellent characteristics while forming phenolic hydroxyl groups without generating volatile components. Pref. examples of the elastomer used are an NBR, a polyurethane, a polyamide, an acrylic rubber, and derivs. of these polymers having reactive functional groups, such as epoxy, hydroxyl, carboxyl, amino, or isocyanate groups, at the side chains or terminals of the backbone. The elastomer may be liq. or solid, may be a gel having a crosslinked structure, and is used in an amt. of 2-50 wt.% when it is solid and in an amt. of 2-30 wt.% when it is liq.

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